

POSITIONERS

POSIMATIC 2E

SAFETY INSTRUCTIONS FOR USE AND MAINTENANCE

MACHINE No W000315256



EDITION: EN
REVISION: O
DATE: 07-2019

Instructions for use

REF: **8695 6636**

Notice originale

LINCOLN[®]
ELECTRIC

Thank for the trust you have expressed by purchasing this equipment, which will give you full satisfaction if you follow its instructions for use and maintenance.

Its design, component specifications and workmanship comply with applicable European directives.

Please refer to the enclosed CE declaration to identify the directives applicable to it.

The manufacturer will not be held responsible where items not recommended by themselves are associated with this product.

For your safety,there follows a non-restrictive list of recommendations or requirements, many of which appear in the employment code.

Finally we would ask you kindly to inform your supplier of any error which you may find in this instruction manual.

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DISPLAYS AND PRESSURE GAUGES

The measuring devices or displays for voltage, current, speed, pressure, etc., whether analog or digital, should be considered as indicators

REVISIONS

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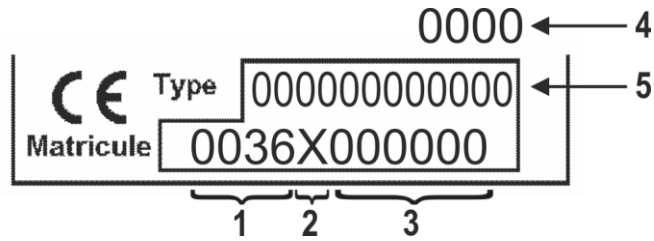
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A - IDENTIFICATION

Please enter the number of your machine in the following box.

Quote this information in all correspondence.



1	Manufacturing factory code	4	Year manufactured
2	Manufacturing year code	5	Product type
3	Product serial no.		



B - SAFETY INSTRUCTIONS

For general safety instructions, please refer to the specific manual supplied with the equipment.



1 - AIRBORNE NOISE

Please refer to the specific manual supplied with the equipment.

2 - SPECIFIC SAFETY INSTRUCTIONS



The positioner must be placed on flat and sufficiently strong ground.



Before using the machine, make sure that all the guards are in place. All guard covers must be screwed in. Only authorised personnel may access electrical cabinets, which must have locking systems.



Check the state of the electrical cables (supply and controls).



Carry out a dry test run of the rotation movement and make sure the safety systems are operating correctly.



Do not exceed the tilting and rotating torques which determine the maximum admissible load (see diagrams on the equipment).



Do not let loads fall hard on the equipment.



Fully tighten the workpiece(s) on the positioner table.



The positioner equipped with its load works within a certain area, regardless of its angular and rotation position. That area must be kept free from any obstacles that could hinder the movements of the positioner and its load, or the free movement of the operator.



Never use the positioner table as a sheet metal working table or heat the workpiece without taking basic precautions.



If the equipment is used for welding, make sure that the ground of the power source is connected to the piece before you start welding.



Never modify the machine. The positioner **is not** designed for anchoring or lifting equipment



The use of Personal Protective Equipment (PPE) is **mandatory**.



Clean the working area from time to time.



Machine maintenance must be carried out **with all the energy supplies switched off**.

ESSENTIAL INSTRUCTIONS FOR THE USE OF THE POSITIONER WHILE PROTECTING HUMAN SAFETY AND THE LIFE OF THE DEVICE

- Read the instructions for use and maintenance carefully, and also the instructions below.
- Never exceed the tilt and rotation torques that determine the maximum permissible load.
- Make sure that the working of the device is not hindered by tools and/or objects left near the moving parts or collisions between the connections of rotating parts and fixed elements (floor, frame feet, posts, workshop structures etc.)
- Do a **DRY RUN OF THE MOVEMENTS** and make sure that the safety devices and systems are operating correctly, particularly the limit switches.
- **NEVER TRY ANY MANOEUVRES** with a person on or under the load.
- **CLAMP** the piece or pieces on the positioner table securely.
- Do not drop loads on the devices suddenly.
- Put back the guard covers of electrical and mechanical parts before starting up the device.
- Never touch electrical or mechanical devices before disconnecting them.
- Make sure that the power and control conductors of the device are in good condition.
- Never use the positioner table as a boiler-work table or warm up table without taking basic precautions.
- Follow the lubricating instructions, which require the periodic verification of the device, and keep the operations safe.

C - DESCRIPTION

POSIMATIC is a bench positioner with rotation driven by a variable-speed motor and manual tilting over 135° with the facility to lock it in position. It is made up by assembling two arched metal blanks located on either side of a box that acts as a spacer and encloses the electrical equipment.

The top of the blanks are fitted with the shafts that make it possible for the rotating assembly to turn. The control console at the rear has the various controls and safety systems and a warning to remind the user of the load that must not be exceeded depending on the position of the centre of gravity of the piece.

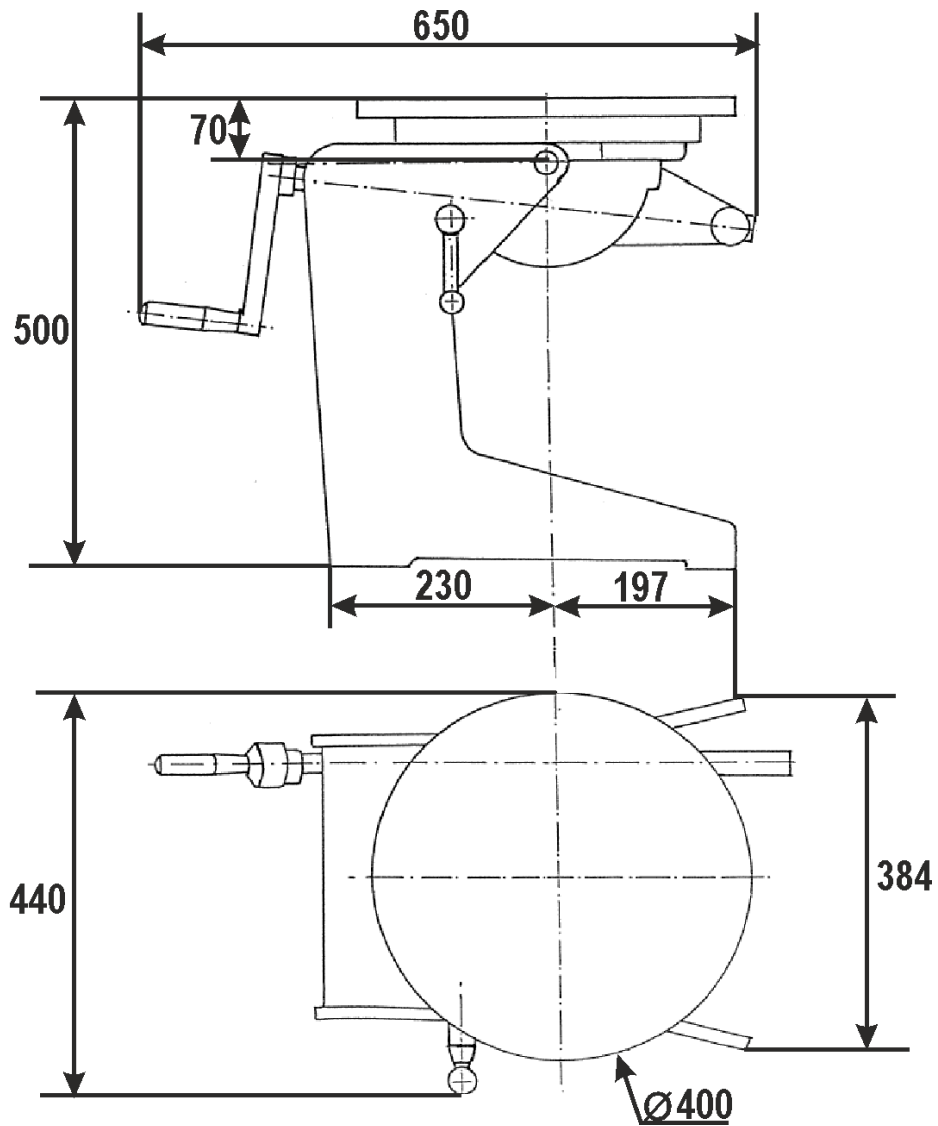
A pedal located at the end of a 3-metre cable is used by the operator to control rotation. It leaves the hands free for carrying out the welding work.

The speed variation is done by means of an electronic variator.

The rotation movement is irreversible.

1 - MAIN CHARACTERISTICS

Horizontal table load	200 kg
All-position load	200 kg
<u>a) Tilt</u>	
- maximum lifting torque	40 m.DaN
- manual tilt	
- table tilt angle	135°
- tilt shaft/table distance	0.070 m
<u>b) Rotation</u>	
- maximum rotation torque	4 m.DaN
- min. rotation speed (in rpm)	0.25
- max. rotation speed (in rpm)	5
- variation ratio	1 to 20
- rotation motor power	120 W
- Irreversible movement; the load cannot in any case drive the table.	
<u>c) Table</u>	
- dimensions	Ø 400 mm
- Ø of shaft passage	35 mm
<u>d) Dimensions</u>	
- height	500 mm
- length	650 mm
- width	440 mm



Total weight of device 60 kg

Welding earth clamp

100% capacity 300 A
 60% capacity 400 A

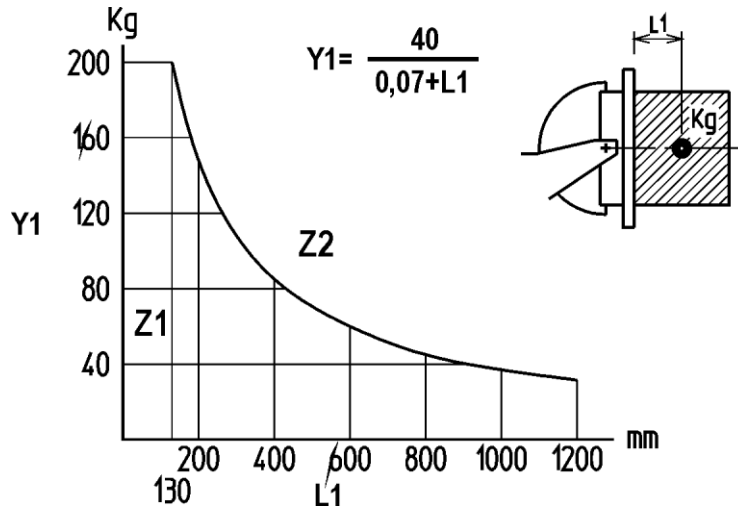
Power

Voltage	230 V	400 V
Max. consumed intensity	0.7 A	0.4 A
Max. power	0.15 KVA	
Frequency	50/60 Hz	



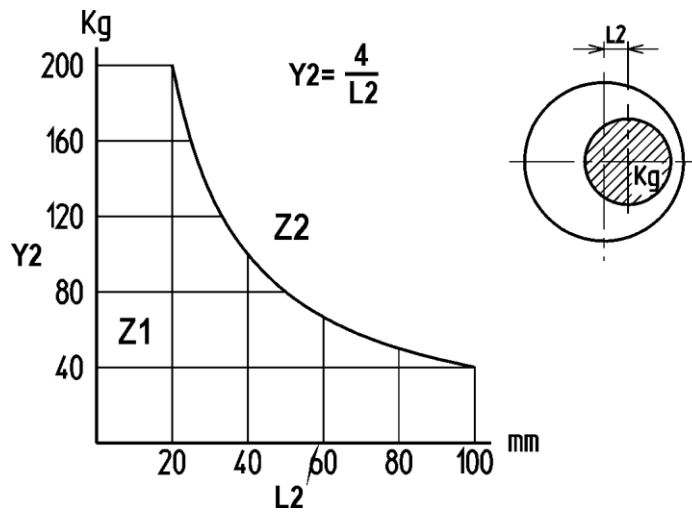
The maximum torques do not allow 100% use in rotation

e) Diagram of tilt torque

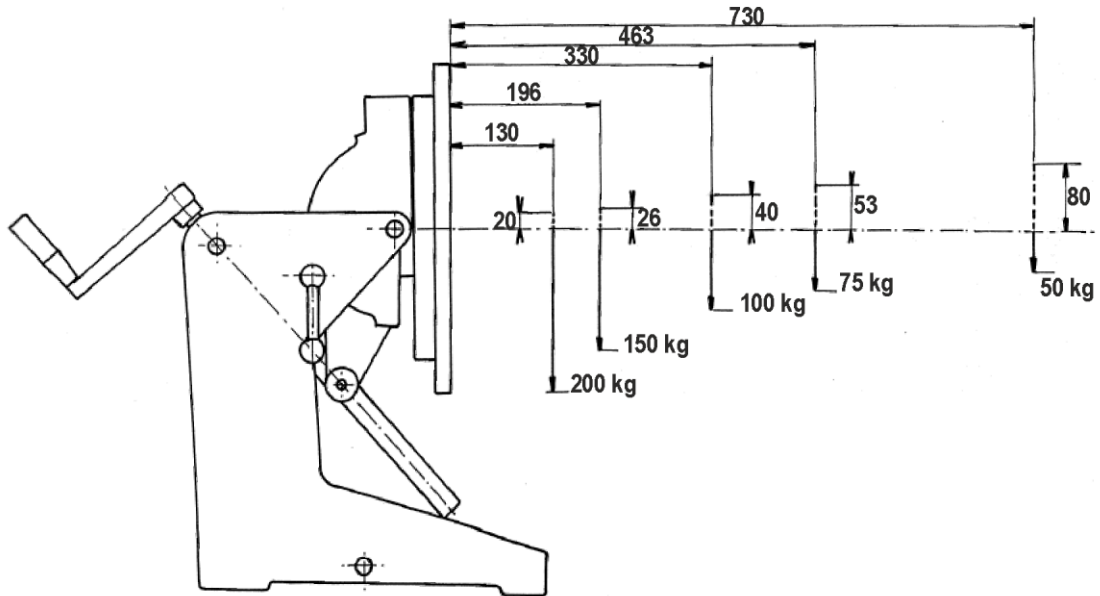


- Z1** Permitted zone
- Z2** Forbidden zone (vertical table)
- Y1** Load in Kg
- L1** Distance / table in m

f) Diagram of rotation torque



- Z1** Permitted zone
- Z2** Forbidden zone (vertical table)
- Y2** Load in Kg
- L2** Off-centre shift in m

g) Load depending on the position of the centre of gravity of the pieces

This device is used to position pieces of varied shapes by making it as easy as possible to perform operations such as welding, oxygen cutting, surfacing, metallization etc. by setting the working line in the best position.

Example of load on the machine:

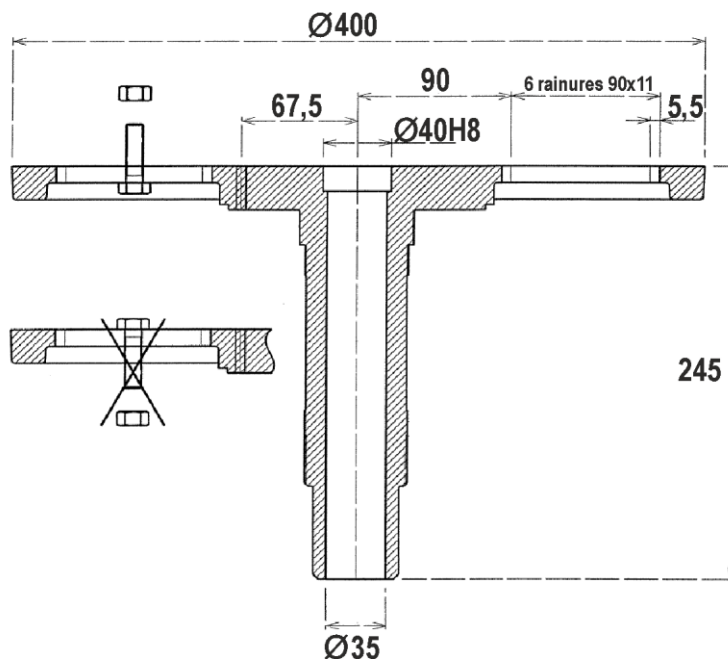
The 100-kg weight is stated for a piece with an overhang, where the centre of gravity is no more than 330 mm away from the table set in the vertical position, with an eccentricity of 40 mm in relation to the rotation axis.

2 - DETAILED DESCRIPTION

TABLE

The table is made as a single-piece iron casting with its tubular shaft.
The shaft is fitted on a ball bearing.

The table has six radial ports that make it possible to fix the parts to be positioned with bolts, and a smooth central bore of $\text{Ø}30$ H8 and concentric ports to make it easier to centre the pieces.



TILT COMPONENTS

A smooth sector on the side of the casing may be blocked with a clamp system controlled by an indexing handle in the position required by the operator.

EARTH CLAMP

The capacity of the earth clamp (300 - 400 A) is such that it makes it possible to use almost all welding processes. However, when used for welding with powder flux, it is preferable to double it in order to enable greater intensity.

Also, in order to keep the earth clamp from overheating, users are advised to use welding cables that have a section that is of course compatible with the intensity conducted and its duty ratio.

The earth clamp must necessarily be connected in order to prevent damage to the ball bearings of the positioner.

D - ASSEMBLY - INSTALLATION

1 - HANDLING



**Operator protection :
Helmet - Gloves - Safety shoes**

2 - CONNECTING

The device is normally supplied to be powered with 400 VAC 50/60 Hz power.
To change the voltage, move wire no. 6 of the 230 V terminal of the transformer.
The main power is connected by means of a three-conductor wire. The customer must use a male connector that is suited to the installation.
The pedal is connected to the board at 11 and 12.



E - OPERATOR MANUEL

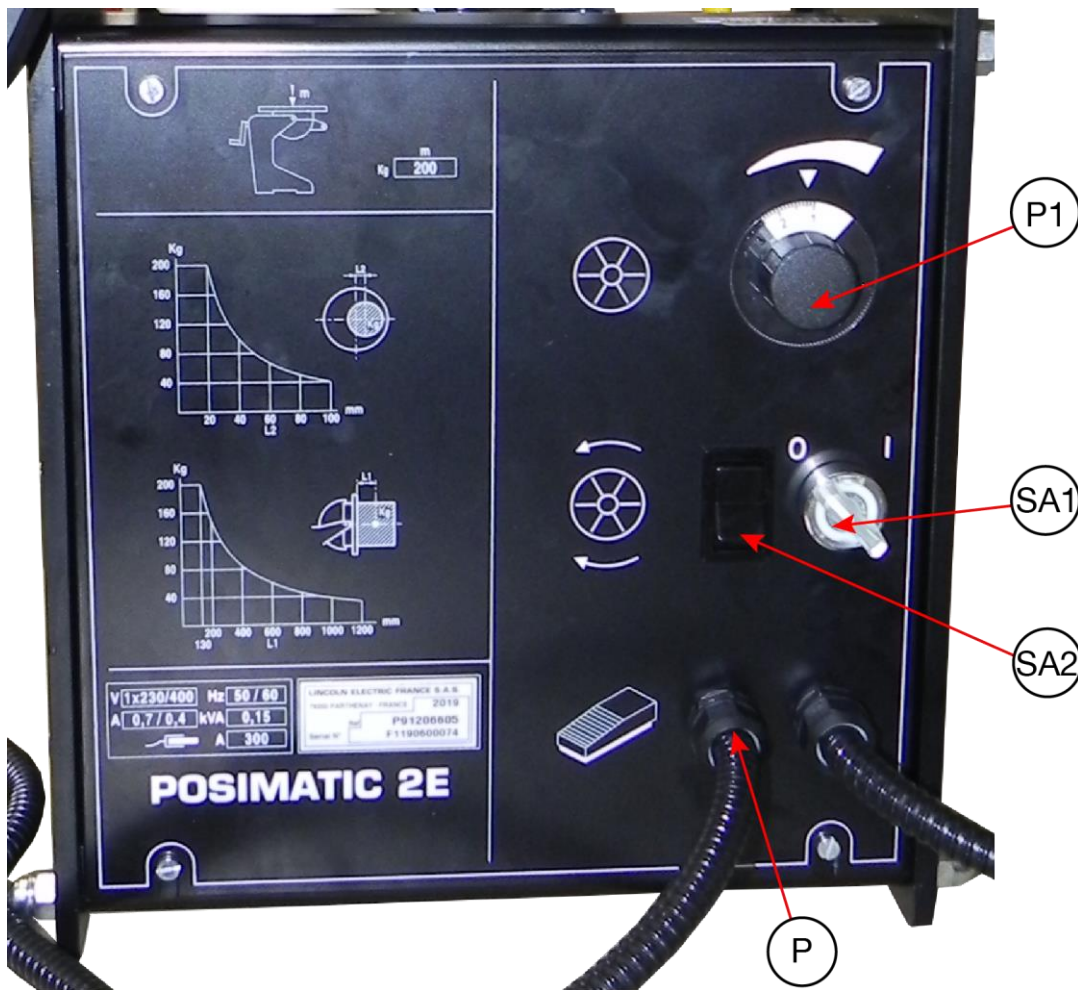
The positioner has a switch **SA1** for turning the power on.

The rotation direction of the table can be selected with the help of inverter **SA2**.



The positioner can only be started when **SA1** and the pedal **P** are connected.

Potentiometer **P1** is used to modify the table speed.



F - MAINTENANCE

1 - SERVICING



- So that the machine continues to provide good service for as long as possible, a certain minimum of care and maintenance is necessary
- The frequency of this maintenance work is given on the basis of the production of one work station per day. Maintenance should be more frequent if production is greater.

Your maintenance department may photocopy these pages so that it can follow up maintenance dates and operations (tick as appropriate)

The positioner is designed to simplify the usual maintenance requirements of positioners. For instance, the bearings have lifelong lubrication and do not require periodic lubrication.

All the parts of the geared motor, bearings, brushes, wheels and screws are designed to wear at the same time. That means that the failure of one of them requires the replacement of all.

Weekly

Date of maintenance: / /		
	Regularly check the condition of the surfaces in contact with the earth clamp.	
	<ul style="list-style-type: none"> - Clean the gear teeth, especially at the back. - Lubricate the gear teeth with a brush. 	<u>Lubrication:</u> BP GR 153 GS ESSO SURETT NX 5K WYNN'S HPG

2 - SPARE PARTS

How to order

The photos or sketches identify nearly every part in a machine or an installation

The descriptive tables include 3 kinds of items:

- those normally held in stock: ✓
- articles not held in stock: ✗
- those available on request: no marks

(For these, we recommend that you send us a copy of the page with the list of parts duly completed. Please specify in the Order column the number of parts desired and indicate the type and the serial number of your equipment.)

For items noted on the photos or sketches but not in the tables, send a copy of the page concerned, highlighting the particular mark.

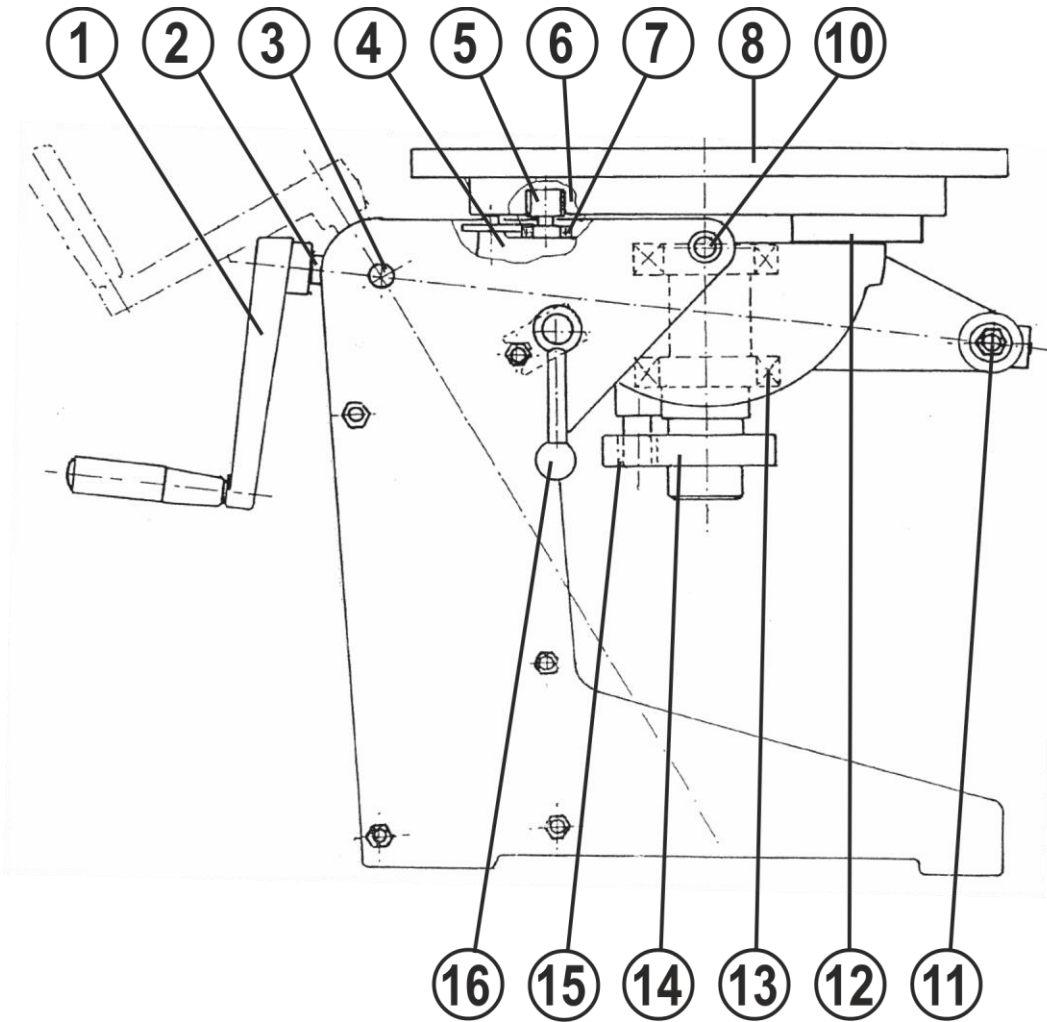
For example:

Item	Ref.	Stock	Order	Designation
1	W000XXXXXX	✓		Machine interface board
2	W000XXXXXX	✗		Flowmeter
3	9357 XXXX			Silk-screen printed front panel

✓	normally in stock
✗	not in stock
	on request

- For parts order, give the quantity required and put the number of your machine in the box below.

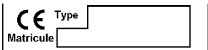
CE Type <input style="width: 80px;" type="text"/> Matricule <input style="width: 80px;" type="text"/>	TYPE: <input style="width: 100%; height: 20px;" type="text"/> Number: <input style="width: 100%; height: 20px;" type="text"/>
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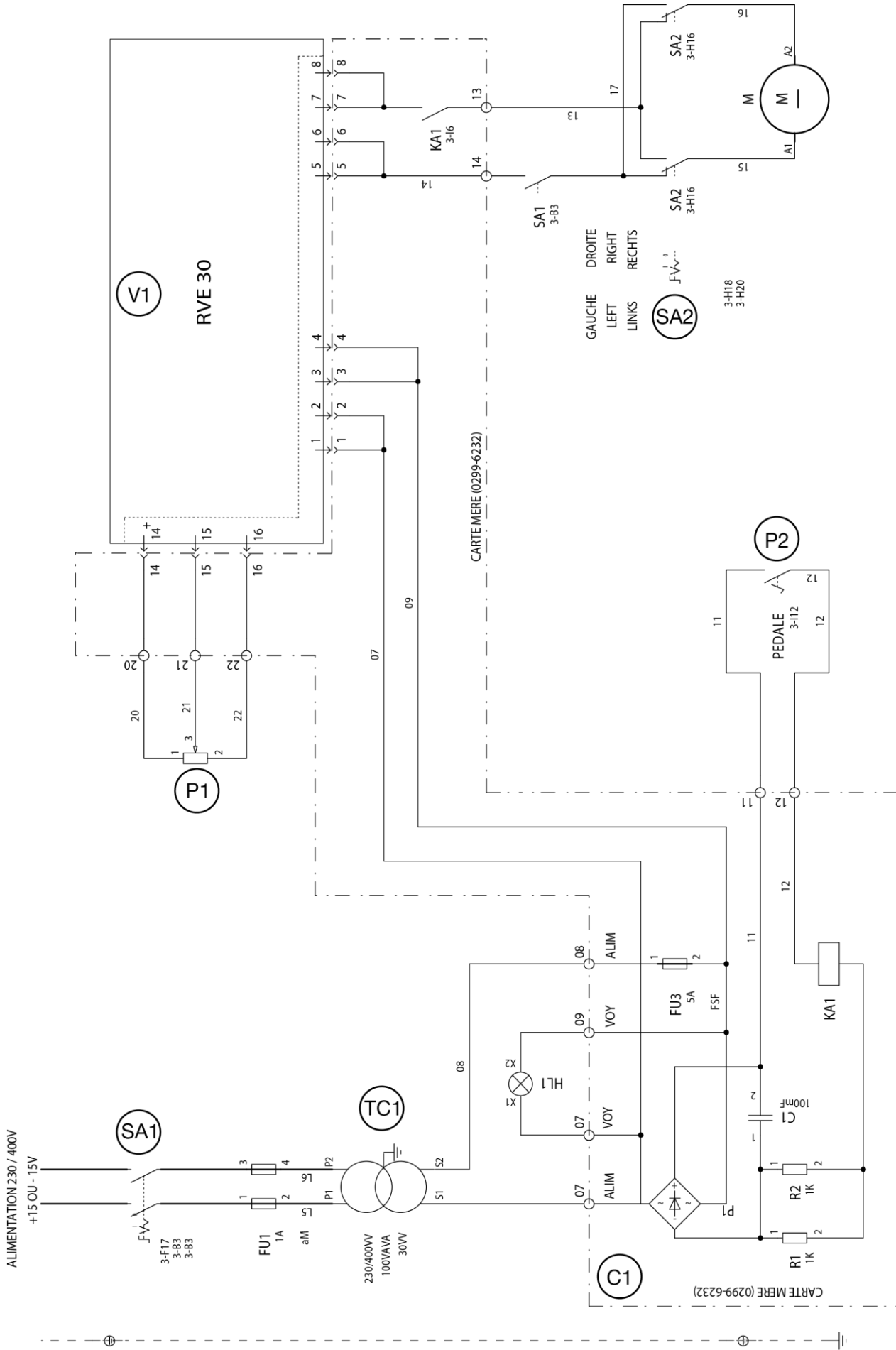


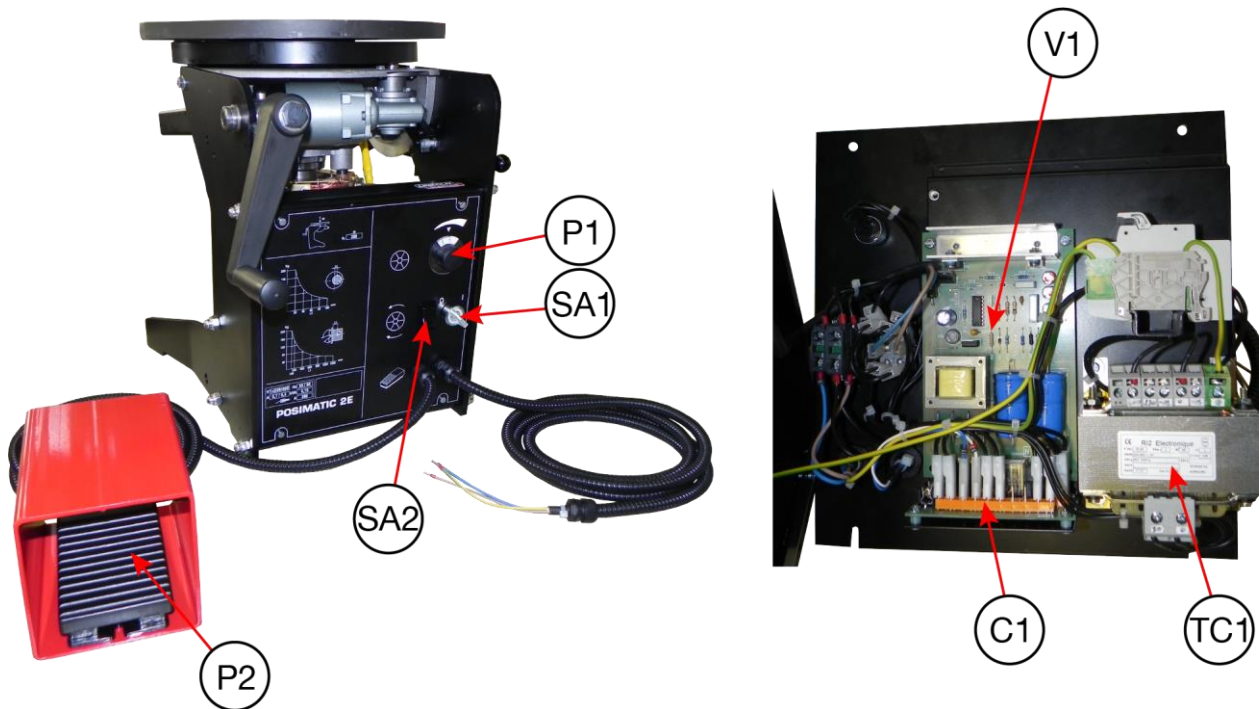
✓	normally in stock
✗	not in stock
	on request

Item	Ref.	Stock	Order	Designation
1	PC6201169			GN 471 160 V17 crank
2	P02998156			Trapezoid thread screw
3	P02998154			Screw bearing
4+5	W000137964	✓		Additional geared motor assembly + Pinion with 12 teeth
4	PC5700068			PM3CM geared motor
5	P02998197			Pinion with 12 teeth
6	P02998167			Wheel with 127 teeth
7	W000365993	✗		6201 2RS bearing
8	P02998164			Rotating table
10	PC5255421			Cylindrical pin
11	P02998157			Tenon nut
12	P02998165			Pivot pin casing
13	PC6200546			6012 2RS bearing
14	W000140159	✓		Short braid earth clamp
	W000137924	✓		Earth clamp brush (x1)
15	P91200133			Insulating spacer
16	W000365912	✗		Indexable handle

➤ For parts order, give the quantity required and put the number of your machine in the box below.

	TYPE:
	Number:





✓	normally in stock
✗	not in stock
	on request

Item	Ref.	Stock	Order	Designation
C1	W000137929	✓		Packed mother board
KA1	PC5606051			12vdc 5A 1RT /CI MKP relay
PR1	PC5603801			1 AMP. 200 V. rectifier bridge
C1	PC5600084			100MF 40V cond.
R1-R2	PC5601398			1/2W 5% 1 K resis.
V1	W000179461	✓		RVE 30-6 variator board
TC1	W000365913	✗		100VA230.400/30 trans.
P1	W000147301	✓		1 K PE30AM pot.
	P00230155			Graduated adjustment button
SA1	W000137931	✓		Luminous switch
SA2	W000137811	✓		16 A 250 V black inverter
FU1	P00200045			10 x 38 1 A AM fuse
FU3	P00200010			5 x 20 5 A FSF fuse
P2	W000137904	✓		Footpedal POSISAF

➤ For parts order, give the quantity required and put the number of your machine in the box below.

CE Type

Matricule

TYPE:

Number:

